

IN THE CLAIMS:

1. (Currently Amended) An apparatus for retrofitting a section of drill pipe with a transmission line, the apparatus comprising:

an insert for insertion into at least one of the box end and the pin end of a section of drill pipe, wherein the insert comprises a mount portion and a slide portion;

a transmission element mounted in the slide portion; and

a biasing element for effecting a bias between the mount portion and the slide portion;

wherein the insert is inserted into the inside diameter of a section of drill pipe and narrows a central bore of the drill pipe.

2. (Canceled)

3. (Original) The apparatus of claim 1, further comprising a channel traveling through at least one of the slide portion and the mount portion to accommodate a transmission line.

4. (Original) The apparatus of claim 3, further comprising a transmission line routed through the channel, wherein the transmission line is configured to flex when the slide portion slides with respect to the mount portion.

5. (Currently Amended) The apparatus of claim 1, wherein the biasing element is selected from the group consisting of an elastomeric material, a spring, and compressed gas, ~~or a combination thereof.~~

6. (Original) The apparatus of claim 1, wherein: the slide portion is substantially cylindrical in shape; and the slide portion is characterized by an annular mating surface configured to contact a corresponding annular mating surface.

7. (Original) The apparatus of claim 6, wherein: the transmission element is substantially annular; and the transmission element is mounted in the annular mating surface.

8. (Original) The apparatus of claim 1, further comprising a stop mechanism adapted to prevent the slide portion from sliding more than a specified distance with respect to the mount portion.

9-20. (Canceled)

21. (New) The apparatus of claim 1, wherein the insert is smoothed.

22. (New) The apparatus of claim 1, wherein the insert comprises a flange adapted to sit against a shoulder of the drill pipe.

23. (New) The apparatus of claim 1, wherein the insert is radially expandable.

24. (New) The apparatus of claim 1, wherein the insert comprises a tapered end that includes one of more gaps to allow for expansion.

25. (New) The apparatus of claim 1, wherein the apparatus comprises a plurality of biasing elements opposed from one another between the slide and mounting portions.

26. (New) An apparatus for retrofitting a section of drill pipe with a transmission line, the apparatus comprising:

a pin end insert comprising a first transmission element, wherein the pin end insert is insertable into an inner diameter of the the pin end of a section of drill pipe and narrows a central bore of the drill pipe; and

a box end insert comprising a second transmission element,
wherein the box end insert is insertable into a shoulder of the box end of a section of drill pipe.

27. (New) The apparatus of claim 26, wherein at least one of the pin end insert and the box end insert further comprises a mount portion and a slide portion.

28. (New) The apparatus of claim 26, further comprising a biasing element for effecting a bias between the mount portion and the slide portion.

29. (New) The apparatus of claim 27, wherein at least one of the first and second transmission elements is mounted to the slide portion.

30. (New) The apparatus of claim 27, further comprising a channel traveling through at least one of the slide portion and the mount portion to accommodate a transmission line.

31. (New) The apparatus of claim 29, further comprising a transmission line routed through the channel, wherein the transmission line is configured to flex when the slide portion slides with respect to the mount portion.